

REMARKS

In the Office Action dated April 1, 2003 in the parent application, the Examiner rejected claims 10-12 and 26-33. In this Preliminary Amendment, the Applicants amended claim 10, cancelled claims 1-9 and 13-25, and added new claims 26-33. These new claims are identical to the original claims 26-33 except that claim 26 further recites: "wherein one removal arm is disposed in a substantially central region of the clip body." In addition, claim 31 recites "is squeezable" rather than "may be squeezed," as recited in the parent application. In view of the foregoing amendments and the following remarks, Applicants respectfully request allowance of all pending claims.

First Rejections under 35 U.S.C. § 103

The Examiner rejected claims 10-12 under 35 U.S.C. § 103(a) as obvious over Blomquist (U.S. Patent No. 6,061,239) and/or Chen (U.S. Patent No. 6,421,242) in view of Lee (U.S. Patent No. 6,108,207). Applicants stress that the Blomquist and Chen references neither teach nor suggest (explicitly or inherently) the present technique, as recited in independent claim 10. In addition, the secondary reference, Lee, does not obviate the deficiencies of the primary Blomquist and Chen references. As discussed below, the cited references teach away from one another, thereby precluding the requisite motivation or suggestion to combine the references.

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (PTO Bd. App. 1979). If the Examiner combines the teachings of the prior art to produce the claimed invention, a *prima facie* case of obviousness cannot be established absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). Accordingly, to establish a *prima facie* case, the Examiner must not only show that the combination includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985). When prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gained from the invention itself, i.e., something in the

prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988).

Independent claim 10 recites interalia, a “*rotatable arm* wherein the arm may be rotated between a locked position and an unlocked position such that the locked position causes a securing force to be applied to a retained component disposed between the main body and the retaining member; *and a disengaging member* disposed such that a *pinching force is applicable to the disengaging member and to the rotatable arm* in the unlocked position such that the connector member disengages the main body from the retaining member.”

In contrast, Blomquist simply teaches a retainer clip with “a *cam-type latch* which is pivotally positioned in the middle of the elongated strap and includes an arm and a cam.” Abstract. Similarly, Chen merely teaches a heat sink clip with a handle portion having a pressing *cam*. Col. 1, lines 46-51. As acknowledged by the Examiner, neither one of these references teaches or suggests a disengaging member, as recited in the instant claim. Accordingly, the Examiner turned to Lee, specifically stating:

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the retainer clip in Blomquist and/or Chen with a disengaging member such that when a pinching force applied thereon and rotating its rotatable arm to unlocked position thus its connecting member disengages its main body from its retaining member in the manner taught, disclosed and suggested by Lee, especially, since such modification involves only routine skill in the art.

Parent Application, Paper No. 5, Page 4. Applicants respectfully traverse these arguments, because the cited references clearly teach away from one another in a manner precluding the requisite motivation or suggestion to combine the references.

More specifically, the Examiner’s proposed modifications would render the prior art unsatisfactory for its intended purpose and would change the principle of operation of each respective reference. According to *In re Gordon*, if the proposed modification would *render*

the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Likewise, according to *In re Ratti*, if the proposed modification or combination of the prior art would *change the principle of operation of the prior art invention being modified*, then teachings of the reference are not sufficient to render the claims *prima facie* obvious. 270 F.2d 810, 123 USPQ 349 (CCPA 1959). Additionally, the references cited by the Examiner teach away from one another and it has been held improper to combine references where the references teach away from their combination. *In re Grasseli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983).

Turning to the cited reference, Lee teaches away from a combination with the Blomquist reference. For example, Lee teaches away from the use of separately manufactured members as disclosed by Blomquist. Col. 1, line 63 through Col. 2, line 7. In fact, the Lee reference discloses a clip that is *integrally formed* to provide sufficient retention force for securely retaining a heat sink. See Col. 2, line 23; Col. 4, lines 41-45. To the contrary, the Blomquist reference discloses *multiple parts* (not integral), including a *metallic strap and a cam-type latch*, to mount a heat sink. See Col. 4, lines 47-48. For these reasons, the cited references clearly teach away from one another and, thus, are not properly combinable.

Additionally, the structures and mounting mechanisms disclosed by these references are fundamentally different and incompatible. Applicants respectfully remind the Examiner that prior art references must be considered in their entirety. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). The Blomquist reference discloses a *multiple component* clip with a *flat center portion and a cam-type latch* for engaging the heat sink. Col. 4, lines 44-56 and Col. 3, lines 28-32. The Lee reference discloses an *integrally formed* clip with a *curved spring portion*. Col. 2, lines 22-33. The curved spring portion in the Lee reference has a “central arcuate section for providing resiliency thereof *to ensure an intimate contact between the spring portion and the heat sink.*” Col. 3, lines 35-41. Accordingly, the Examiner’s proposed combination of the flat center portion and cam-type latch of Blomquist with the curved spring portion of Lee would *change the principle of operation of each prior art invention being*

modified and render each unsatisfactory for its intended purpose. For these reasons, the cited references are not properly combinable.

Lee also teaches away from combination with the Chen reference. Again, as discussed above, the Lee reference teaches away from the use of separately manufactured members. See Col. 1, line 63 through Col. 2, line 7. In fact, the Lee reference discloses a clip that is *integrally formed* to provide sufficient retention force for securely retaining a heat sink. See Col. 2, line 23; Col. 4, lines 41-45. In contrast, the Chen reference discloses *multiple parts* (not integral), including a heat sink clip with a handle portion having a pressing cam, a connecting portion, and a sliding portion. See Col. 1, lines 41-51. For these reasons, the cited references clearly teach away from one another and, thus, are not properly combinable.

Additionally, the structures and mechanisms disclosed by these references are fundamentally different and incompatible. The Chen reference discloses a heat sink clip with a handle portion having a *pressing cam*, a connecting portion, and a *sliding portion*, to achieve a secure attachment to a heat sink. See Col. 1, lines 41-51. The Lee reference discloses an *integrally formed* clip with a *curved spring portion*. See Col. 2, lines 22-33. The curved spring portion in the Lee reference has a “central arcuate section for providing resiliency thereof to ensure an intimate contact between the spring portion and the heat sink.” Col. 3, lines 35-41. Accordingly, the Examiner’s proposed combination of the apparatus for securing attachment in the Chen reference with the arcuate section for securing contact in the Lee reference would *change the principle of operation of the prior art invention being modified and render it unsatisfactory for its intended purpose.* For these reasons, the cited references are not properly combinable.

In view of the arguments presented above, independent claim 10 and its dependent claims 11-12 are believed to be patentably distinct from the prior art and in condition for allowance. Accordingly, Applicants respectfully request the Examiner withdraw the rejection of claims 10-12 under 35 U.S.C. § 103(a).

Rejections under 35 U.S.C. § 102

The Examiner rejected claim 26 under U.S.C. § 102(b) as anticipated by Lee, U.S. Patent No. 6,108,207. Applicants respectfully traverse this rejection.

Anticipation under section 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 U.S.P.Q. 773 (Fed. Cir. 1985). For a prior art reference to anticipate under section 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). To maintain a proper rejection under section 102, a single reference must teach each and every limitation of the rejected claim. *Atlas Powder v. E.I. du Pont*, 750 F.2d 1569 (Fed. Cir. 1984). Accordingly, the Applicants need only point to a single element not found in the cited reference to demonstrate that the cited reference fails to anticipate the claimed subject matter. The prior art reference also must show the *identical* invention “*in as complete detail as contained in the ... claim*” to support a *prima facie* case of anticipation. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989).

Independent claim 26 recites, *inter alia*, a retainer clip comprising two retaining arms and two removal arms extending in first and second opposite directions, wherein “one removal arm is *disposed in a substantially central region* of the clip body.” In contrast, the Lee reference discloses first and second squeezing portions disposed at opposite ends of a curved spring portion. *See* Col. 3, lines 35-40. Neither one of these squeezing portions is disposed at a substantially central region of the curved spring portion. Accordingly, the cited reference fails to teach each and every element recited in the instant claim. For this reason, the cited reference cannot anticipate the instant claim.

In view of the foregoing amendments and remarks, the Applicants respectfully request the Examiner withdraw the rejection of claim 26 under 35 U.S.C. § 102(b).

Second Rejections under 35 U.S.C. § 103

The Examiner rejected claims 26-28 and 33 under 35 U.S.C. § 103(a) as unpatentable over Lee in view of Erthein (U.S. Patent No. 4,355,743). Again, Applicants stress that Lee neither teaches nor suggests (explicitly or inherently) the present technique, as recited in

independent claim 26. Further, the additional reference cited by Examiner does not obviate the deficiencies of the Lee reference. Additionally, there is no motivation or suggestion to combine the cited references. Finally, dependent claims 27, 28, and 33 are believed to be patentable by way of their dependencies on independent claim 26 and by way of further unique features recited in each respective claim.

As discussed above, claim 26 recites a retainer clip comprising two retaining arms and two removal arms extending in first and second *opposite directions*, wherein “one removal arm is disposed in a substantially central region of the clip body.” In contrast, Lee simply teaches first and second squeezing portions disposed at opposite ends of a curved spring portion. *See Col. 3, lines 35-40.* Neither one of these squeezing portions is disposed at a substantially central region of the curve spring portion. Moreover, the Erthein reference does not obviate the deficiencies of the primary reference. Instead, the Erthein reference merely teaches a garment hanger having a clamp 10 and a springable compression or locking clip 13. *See Fig. 1, Col. 3, lines 45-55.* Neither the clamp 10 nor the locking clip 13 is a removal arm, as recited in the instant claim. Moreover, the projecting portions of the clamp 10 and the locking clip 13 of Erthein are all oriented in the *same direction*, rather than opposite directions as recited in the instant claim. *See Fig. 1.* For these reasons, the Lee reference, taken alone or in combination with the Erthein reference, does not disclose all elements of the subject claims.

In addition, Applicants respectfully stress that the Erthein reference is not analogous art and, thus, the Examiner's proposed combination is improper. For the teachings of a reference to be prior art under 35 U.S.C. § 103, there must be some basis for concluding that the reference would have been considered by one skilled in the particular art working on the particular problem with which the invention pertains. *In re Horne*, 203 U.S.P.Q. 969, 971 (C.C.P.A. 1979). Non-analogous art cannot properly be pertinent prior art under 35 U.S.C. § 103. *In re Pagliaro*, 210 U.S.P.Q. 888, 892 (C.C.P.A. 1981). The determination of whether a reference is from a non-analogous art is set forth in a two-step test given in *Union Carbide Corp. v. American Can Co.*, 724 F.2d 1567, 220 U.S.P.Q. 584 (Fed Cir. 1984). In *Union Carbide*, the court found that the first determination was whether “the reference is within the field of the inventor's endeavor.” If it is not, one must proceed to the second step “to determine whether the reference is reasonably pertinent to the particular problem with which

the inventor was involved.” In regard to the second step, *Bott v. Fourstar Corp.*, 218 U.S.P.Q. 358 (E.D. Mich. 1983) determined that “analogous art is that field of art which a person of ordinary skill in the art would have been apt to refer in attempting to solve the problem solved by a proposed invention.” “To be relevant the area of art should be where one of ordinary skill in the art would be aware that similar problems exist.” *Id.*

Based on the foregoing two-part non-analogous art test, the Erthein reference does not qualify as analogous art. In regard to the first step of the *Bott* test, a garment hanger is in a completely different field of art from the Applicant’s field of endeavor, i.e., heat sinks. The field of garment hangers is generally limited to hanging clothing articles, which has no rational relationship to the field of heat sinks. The mere inclusion of clips does not render a garment hanger within the field of heat sinks, because such clips are provided merely to facilitate the hanging of clothing articles. In contrast, the field of heat sinks is directed toward transferring heat away from a component, such as a computer processor. Accordingly, a skilled artisan in the field of heat sinks would have little or no knowledge of garment hangers and vice versa. Therefore, the Erthein reference is not in the field of Applicant’s endeavor.

In regard to the second step of the *Bott* test, the problems associated with garment hangers are completely different from the problems associated with heat sinks. The problems associated with heat sinks often relate to complex distributions of mounting loads, complex interfaces between the heat sink and the underlying component, and techniques for releasing relatively large mounting loads. In contrast, the problems associated with garment hangers are generally limited to ensuring secure and continuous hanging of articles. The particular distribution of mounting loads, interfaces, and releasing techniques are simply irrelevant for garment hangers. In fact, there is no evidence whatsoever that similar problems exist in these disparate fields of art, much less any evidence to suggest that one of ordinary skill in the art of heat sinks would consult the art of garment hangers for any reason. Accordingly, the Erthein reference is believed to be non-analogous art. Applicants respectfully request removal of the Erthein reference from consideration.

In view of the foregoing amendments and remarks, Applicants respectfully request the Examiner withdraw the rejections of claims 26-28 and 33 under 35 U.S.C. § 103(a).

Third Rejections under 35 U.S.C. § 103

The Examiner rejected claims 29-32 under 35 U.S.C. § 103(a) as being unpatentable over Lee in view of Blomquist (U.S. Patent No. 6,061,239). Applicants respectfully traverse this rejection. As discussed above, the cited references clearly teach away from one another in a manner precluding the requisite motivation or suggestion to combine the references.

Turning to the cited references, Lee teaches away from the use of separately manufactured members as disclosed by Blomquist. *See* Col. 1, line 63 through Col. 2, line 7. In fact, the Lee reference discloses a clip that is *integrally formed* to provide sufficient retention force for securely retaining a heat sink. *See* Col. 2, line 23; Col. 4, lines 41-45. In sharp contrast, the Blomquist reference discloses *multiple parts* (not integral), including a *metallic strap and a cam-type latch* to mount a heat sink. *See* Col. 4, lines 47-48. For these reasons, the cited references clearly teach away from one another and are not properly combinable.

Additionally, the structures and mounting mechanisms disclosed by these references are fundamentally different and incompatible. The Blomquist reference discloses a *multiple component* clip with a *flat center portion and a cam-type latch* for engaging the heat sink. *See* Col. 4, lines 44-56 and Col. 3, lines 28-32. The Lee reference discloses an *integrally formed* clip with a *curved spring portion*. *See* Col. 2, lines 22-33. The curved spring portion in the Lee reference has a “central arcuate section for providing *resiliency thereof to ensure an intimate contact between the spring portion and the heat sink.*” Col. 3, lines 35-41. Accordingly, the Examiner’s proposed combination of the flat center portion and cam-type latch of Blomquist with the curved spring portion of Lee would *change the principle of operation of each prior art invention being modified and render each unsatisfactory for its intended purpose.* For these reasons, the cited references are not properly combinable.

In view of the foregoing amendments and remarks, Applicants respectfully request the Examiner withdraw the rejections of claims 29-32 under 35 U.S.C. § 103(a).

Conclusion

Applicants respectfully submit that all pending claims should be in condition for allowance. However, if the Examiner believes certain amendments are necessary to clarify the present claims or if the Examiner wishes to resolve any other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Date: October 7, 2003



Tait R. Swanson
Reg. No. 48,226
(281) 970-4545

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, Colorado 8-527-2400